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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/879,815	06/13/2001	John Hardy Mosgaard Christensen	CHRISTENSEN1A	4286
7590 04/01/2004				
BROWDY AND NEIMARK, P.L.L.C. 624 Ninth Street, N.W. Washington, DC 20001			EXAMINER YAO, SAMCHUAN CUA	
			ART UNIT 1733	PAPER NUMBER
DATE MAILED: 04/01/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/879,815

Applicant(s)

MOSGAARD CHRISTENSEN ET  
AL.

Examiner

Sam Chuan C. Yao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 February 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 and 7-22 is/are pending in the application.
- 4a) Of the above claim(s) 10-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-4 and 6-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite because it is unclear whether this claim positively requires the limitation recited in a preamble, namely: *"an absorbent dryformed paper web having a plurality of layers, with at least one central layer containing a superabsorbent material"*. For the purpose of examining this claim, although the limitation in the preamble does not give life and meaning to the recited limitation in the body of this claim (i.e. the limitations in the preamble does not provide antecedent basis for limitations in the body in this claim; in fact, the body of the claim only requires a single web layer, while the preamble requires a multi-layered web), in light of Counsel's argument dated 02-24-04 on page 7-8, this claim is assumed to require *"an absorbent dryformed paper web having a plurality of layers, with at least one central layer containing a superabsorbent material"*. It is suggested for Counsel to clarify intended scope of claim 1.

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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Claims 1-4 and 6-9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The original disclosure does not provide sufficient to the following added limitation: "at least one central layer containing a superabsorbent material" (emphasis added). This limitation reads on more than one central layer containing SAP material. Since Counsel failed to provide any guidance (i.e. cite a passage or passages) which would provide support for this added limitation as requested by Examiner in the prior office action, this engenders a New Matter situation.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 1-4 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art (APA) in view of Bair (US 5,135,787), either (LeVan (4,869,771) or Frankosky et al (US 5,225,242)), Kennette et al (US 4,612,226) and further in view of Bryson (US 4,927,582) for reasons of record set forth on 07-28-03 numbered paragraph 5.

### ***Response to Arguments***

1. Applicant's arguments filed on 02-24-04 have been fully considered but they are not persuasive.

In response to Counsel's argument on page 9 full paragraph 2 regarding the process of Bair requires producing a fibrous web by carding and would not have a dusting problem. Applicant/Counsel is herein apprised that a reference is not confined to the disclosed working examples. A proper evaluation of the reference must include a determination of what the reference reasonably conveyed to one having ordinary skill in the art. To this end, it is believed that, forming a fibrous web by carding is not necessary in the process taught by Bair. Equally important, contrary to Counsel's assertion, a dusting problem is not unique to air-laid fibrous web. Counsel's attention is directed to Anderson et al (US 4,211,227; col. 5 lines 39-43), Gunter et al (US 4,301,573; col. 1 lines 27-33) and Kopolow et al (US 4,423,184; lines 46-54). For instance, Anderson et al teaches that "*cellulosic fibers are somewhat brittle and the carding action used to produce nonwoven webs tends to break some fibers and results in the undesirable presence of short fiber lint or dust.*" (emphasis added). As for Counsel's assertion on page 9 full

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paragraph 2 that *"Bair does not teach the use of cellulosic fibers."* Counsel's attention is directed to column 4 lines 61-68, where it clearly discloses incorporating *"wood-pulp, cellulose acetate or the like"* in forming an outer fabric. In fact, in characterizing Bair's process, Counsel argues on page 10 that *"...such web of cellulose fibers does not contain a central layer containing superabsorbent material."* (emphasis added). In any event, to reduce the number of issues in this application, the rejection of claims using Bair as a primary reference is withdrawn.

Counsel argues on page 12 full paragraph 1 to page 13 line 9 that, in numbered paragraph [0010] states *"product bonded by spraying followed by compacting ... lint free, have a relatively high durability and reasonably good absorption."*

Examiner agrees. However, this passage does not teaches away from performing an alternative effective method (i.e. combining binding agent and binding fibers) of manufacturing a fibrous web, where a resultant web not only has a good absorption and free delamination problem, but also free lint/dusting problem. Equally important, this alternative method obviates a critical limitation of solely using a resin binding agent, namely: being restricted to forming a product which has a relative low weight/area or relative thin. The critical problem of solely using a resin binding agent is the difficulty of effectively penetrating into an innermost portion of a thick fibrous web. In general, in impregnating a relatively thick fibrous web with a resin binding agent, a large amount of the resin binding agent would be needed to prevent a fiber web tendency to delaminate. This,

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however, would significantly coat fibers with a resin binding agent at least around an outer portion of the web. As for Counsel's argument that *"airlaid products bonded with thermal bonding fibers have different properties form products made solely with binding agents sprayed onto the web."* Examiner agrees. It is clearly disclosed in Applicant's admitted prior art. As for Counsel's statement on page 13 that *"... fibers with activated fibers have a tendency to release fibers ... Previous solutions ... by using a higher percentage of binder fibers of different length is not realistic from a production standpoint."* Examiner wholeheartedly agrees. That's precisely the reason why one in the art confronted with this problem would have look for solutions to a related non-woven art. One in the art reading the collective teachings of the prior art references would have been motivated to combine resin binding and fiber binding methods in forming a prior art fiber web in order to obviate the dusting problem of the prior art.

As for Counsel's argument on page 13 full paragraph 1 regarding the Bair patent, it should be noted that, Bair is merely cited to show that, it is old in the art to form a fiber web where the web is bonded by a combination of fiber binding and resin binding methods.

As for Counsel's argument regarding a dryformed web having an superabsorbent material central layer, a dryformed web having a superabsorbent central layer is conventional in the art as exemplified in the teachings of Bryson (figures 1 and 5). Perneborn (US 5,415,717) is cited as further evidence that, it is notoriously

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well known in the art to form an absorbent web having a superabsorbent central layer.

As for Counsel's argument on page 13 last paragraph to page 14 regarding the use of small amount of dry matter would involve a large amount of water, Examiner disagrees. Application of a small amount of dry matter to a fibrous web need not require a binder solution having a large amount of water. One can readily accomplish this using a foamed resin binder. Equally important, even for the sake of argument that large amount of water is needed, contrary to Counsel's assertion, a superabsorbent material in a central layer of a web is not necessarily destroyed when exposed with water as evidence from either Akers (US 5,607,750; col. 1 lines 6-63) or Euripides et al (US 5,795,439; col. 1 line 41 to col. 2 line 20).

### ***Conclusion***

2. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any



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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Chuan C. Yao whose telephone number is (703) 308-4788. The examiner can normally be reached on Monday-Friday with second Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael W Ball can be reached on (703) 308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7115 for regular communications and (703) 305-7718 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.

  
Sam Chuan C. Yao  
Primary Examiner  
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scy  
March 25, 2004